STATUS OF THE CLAIMS

1. (Currently Amended) A crest-to-crest generally helical spring formed around an axis, the spring comprising:

a first wave region disposed at a first terminal end of the spring, a second wave region of the spring joining the first wave region, a third wave region of the spring joining the second wave region and disposed at a second terminal end of the spring opposite the first terminal end, the first and second wave regions including a plurality of successive spring turns each having a plurality of successive waves each having wave crest and wave trough portions;

the first wave region including at least one spring turn, the waves in the first region having a constant non-zero amplitude;

the second wave region having an amplitude varying from the first wave region amplitude down to zero ~~uniformly~~ within said second wave region; and

the third wave region including at least a portion of a spirally wound spring turn ~~between three quarter and one and one half spirally wound spring turns~~, the amplitude of the wave in the third wave region being a constant zero amplitude so as to form a flat wave, the third wave region portion forming a flat circular shim having a substantially uniform thickness which is generally perpendicular to said axis.

2. (Original) The spring of claim 1, wherein the first wave region includes two spring turns extending 360 degrees of revolution around the axis.

3. (Original) The spring of claim 1, wherein the second wave region transitions from the first wave region amplitude down to zero within 30 degrees around the axis.

4. (Currently Amended) The spring of claim 1, wherein the first terminal end of the first wave region includes a terminating surface that coincides with the trough in the turn immediately above it such that the terminating surface of the first terminal end of the first wave region will not contact a supporting surface.

5. (Original) The spring of claim 1, wherein the first wave region includes two spring turns extending 360 degrees of revolution about the spring longitudinal axis and the third wave region includes a spring turn which extends between 270 degrees and 540 degrees of revolution about said axis.

6. (Original) The spring of claim 1, wherein the amplitude of the waves in said first wave region is equal to approximately one-half of the free height of a single turn of the central portion of the first wave region.

7. (Original) The spring of claim 1, wherein the third wave region includes a spring turn which extends between 270 degrees and 540 degrees of revolution around the axis.

8. (Original) The spring of claim 1, wherein the amplitude of waves in the second wave region decreases linearly with respect to the distance from the first wave region.

9. (Currently Amended) A spring assembly comprising:

a) a spring which is generally helical formed around an axis; said spring having

a first wave region disposed at one terminal end of the spring including a terminal wave, a second wave region of the spring joining the first wave region, a third wave region of the spring joining the second wave region and disposed at a second terminal end of the spring opposite the first end, the first and second wave regions including a plurality of successive spring turns each having a plurality of successive waves each having wave crest and wave trough portions;

the first wave region including at least one spring turn, the waves in the first region having a constant non-zero amplitude;

the second wave region having an amplitude varying from the first wave region amplitude down to zero ~~uniformly~~ within said second wave region; and

the third wave region including at least a portion of a spirally wound spring turn ~~between three quarter and one and one-half spirally wound spring turns~~, the amplitude of the wave in the third wave region being a constant zero amplitude so as to form a flat wave, the third wave region portion forming a flat circular shim having a substantially uniform thickness which is generally perpendicular to the axis; and

b) a base for supporting said spring, said base having a recess adapted to receive the terminal wave of the first wave region.

10. (Original) The spring assembly of claim 9, wherein the first wave region includes two spring turns each extending 360 degrees around said longitudinal spring axis.

11. (Original) The spring assembly of claim 9, wherein the second wave region transitions from said first wave region amplitude down to zero within 30 degrees around said longitudinal spring axis.

12. (Original) The spring assembly of claim 9, wherein said third wave region includes a spring turn which extends between 270 degrees and 540 degrees of revolution about said spring longitudinal axis.

13. (Original) The spring assembly of claim 9, wherein said recess is arc shaped with edges that align with the radius of the spring.

14. (Original) The spring assembly of claim 9, wherein the recess has a bottom, a trough of the terminal wave of the first wave region resting on the bottom of the recess.

15. (Original) The spring assembly of claim 9, wherein the end of the first wave region coincides with the wave trough in the turn immediately above the end.

16. (Original) The spring assembly of claim 9, wherein the recess has a depth equal to the thickness of the spring.

17. (Original) The spring assembly of claim 9, wherein the recess has a depth equal to one-half the wave amplitude of the first wave region.

18. (New) The spring assembly of claim 1, wherein the third wave region includes between three quarter and one and one half spirally wound spring turns.

19. (New) The spring assembly of claim 9, wherein the third wave region includes between three quarter and one and one half spirally wound spring turns.